

Amendments to the Specification

Please replace the paragraph beginning at page 1, line 4, with the following rewritten paragraph:

This application is related to commonly assigned U.S. patent applications of Nir N. Shavit et al. for Globally Distributed Load Balancing, assigned serial number 09/892,813 and Load-Balancing Queues Employing LIFO/FIFO Work Stealing, assigned serial number 09/893,256, both of which were filed on the same date as this application and are hereby incorporated by reference.

Please replace the paragraph beginning at page 11, line 6, with the following rewritten paragraph:

Each of the threads executes an identical code sequence. The drawing depicts the code sequence somewhat arbitrarily as divided into a number of operations A, B, C, D, and E respectively represented by blocks 66, 68, 70, 72, and 74. These operations' specifics are not germane to the present discussion, but commonly assigned U.S. Patent Application Ser. No. 09/377,349, filed on August 19, 1999, by Alexander T. Garthwaite for Popular-Object Handling in a Train-Algorithm-Based Garbage Collector, now U.S. Patent No. 6,434,576, and hereby incorporated by reference, gives example of the types of garbage-collection operations that blocks 66, 68, 70, 72 and 74 may include.

Please replace the paragraph beginning at page 12, line 1, with the following rewritten paragraph:

Although the present invention's range of applicability is broader, the need for it tends to be more pronounced in operations that involve dynamically identifiable tasks. To illustrate how the need for such a mechanism can arise, let us assume that Fig. 5's operation B involves essentially only statically identifiable tasks, whereas operation C's involve tasks principally identifiable only dynamically. For example, assume that operation B involves processing the root set to find reachable objects. The root set may be divided into groups, and different threads may claim different groups to process.

Although the present invention's teachings can be employed to aid in optimal division of this operation's tasks among threads, the fact that the tasks are suitable for performance in accordance with one of the approaches described in commonly assigned U.S. Patent Application Ser. No. 09/697,729, which was filed by Flood et al. on October 26, 2000, for Work-Stealing Queues for Parallel Garbage Collection, now U.S. Patent No. 6,823,351, and is hereby incorporated by reference.